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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,132	07/16/2003	Pratik M. Mehta	16356.809 (DC-05000)	1971
27683	7590	07/06/2006	EXAMINER	
HAYNES AND BOONE, LLP 901 MAIN STREET, SUITE 3100 DALLAS, TX 75202			CHANG, SUNRAY	
			ART UNIT	PAPER NUMBER
			2121	

DATE MAILED: 07/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/621,132

Applicant(s)

MEHTA ET AL

Examiner

Sunray Chang

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>20040102</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Claims 1 – 21 are presented for examination.

Claims 1 – 21 are rejected.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 – 21 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention.

The preamble part of the independent claims declares “a system control an operating state of a device, the device including a hardware component having a hardware operating state and a software component having a software operating state”, yet, further continual claiming “the system comprising the hardware component, the software component and a coordination component”. It is not clear these three components, hardware, software and coordination, are included in the system or included in the device. Which, the claiming subject matter, has been interpreted to “the system comprising the hardware component, the software component and a coordination component”, based on the examiner’s understanding from the specification and no patent weight would be given to the language for the preamble part of the independent claims.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1 – 13 and 16 – 21 are rejected** under 35 U.S.C. 102(b) as being anticipated by Universal Serial Bus Specification (Compaq, Intel, Microsoft, NEC Revision 1.1, September 23<sup>rd</sup>, 1998, and referred to as **USB** hereinafter).

**USB** teaches,

**Host**            The host computer system where the USB Host Controller is installed.

This includes the host hardware platform (CPU, bus, etc.) and the operating system in use. [Page 6]

**Device**            A logical or physical entity that performs a function. The actual entity described depends on the context of the reference. At the lowest level, device may refer to a single hardware component, as in a memory device. At a higher level, it may refer to a collection of hardware components that perform a particular function, such as a USB interface device. At an even higher level, device may refer to the function performed by an entity attached to the USB; for example, a data/FAX modem device. Devices may be physical, electrical, addressable, and logical. When used as a non-specific reference, a USB device is either a hub or a function. [Page 4]

**USB Device Framework:** A USB device maybe divided into three layers, a Bus Interface, a Logical Device and a Function Block. [Page 175 and further see Chapter 5, Page 25 – 28]

A communication device [a function is a USB device that is able to transmit or receive data or control information over the bus, Sec. 4.8.2.2 Functions, Page 23]

USB Device States [A USB device has several possible states. USB devices perform a reset operation in response to reset signaling on the upstream port. When reset signaling has completed, the USB device is reset, Sec. 9.1 and Sec. 9.1.1, Page 175; see further Fig. 9 – 1. Device State Diagram; Table 9 – 1. the different states]

Changing the states [Bus Enumeration, when a USB device is attached or removed from the USB, been used by the host to identify and manage the device state changes necessary, Sec. 9.1.2 Bus Enumeration, Page 179; see also Chap. 9, Page 175 – 185]

Predefined state [Sec. 9.1.1.3 Default, Page 178]

State changes [Sec. 10.2.1 State Handling, Any Host Controller state changes that are visible to attached devices must be reflected in the corresponding device state change information such that the resulting Host Controller and device states are consistent, Page 212]

A light output, a sound output and a sensor feedback generating device [light pen Sec. 4.8.2.2 Page 23; **Function** A USB device that provides a capability to the host, such as an ISDN connection, a digital microphone, or speakers, Page 6; feedback see Sec. 5.10.4.2]

An User Interface [Sec. 1.1 Page 1]

**Driver:** When referring to hardware, an I/O pad that drives an external load. When referring to software, a program responsible for interfacing to a hardware device; that is, a device driver.

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. **Claims 14 and 15 are rejected** under 35 U.S.C. 103(a) as being unpatentable over **USB**, and in view of Henry Milan et al. (U.S. Patent No. 7,028,114 and referred to as **Milan** hereinafter).

(USB as set forth above generally discloses the basic inventions.)

**Regarding dependent claims 14 and 15,**

USB teaches communication devices. [**Device:** a logical or physical entity that performs a function. The actual entity described depends on the context of the reference. At the lowest level, device may refer to a single hardware component, as in a memory device. At a higher level, it may refer to a collection of hardware components that perform a particular function, such as a USB interface device. At an even higher level, device may refer to the function performed by an entity attached to the USB; for example, a data/FAX modem device. Devices

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may be physical, electrical, addressable, and logical. When used as a non-specific reference, a USB device is either a hub or a function, Page 4]

**USB** does not teach a wireless radio includes a transmitter and a receiver separately controlled.

**Milan** teaches a wireless radio includes a transmitter and a receiver separately controlled [a wireless USB hub for connecting a plurality of remote peripheral devices to a computer ... includes a receiver for receiving ... passing appropriate peripheral device information to a USB upstream port and then to a computer, Abstract], for the purpose of communication therewith without the need to physically connect the peripheral devices to the hub via a cable connection [Abstract].

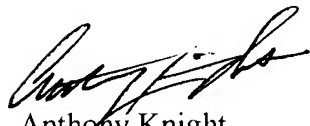
It would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of **USB** to include "a wireless radio includes a transmitter and a receiver separately controlled" for the purpose of communication therewith without the need to physically connect the peripheral devices to the hub via a cable connection [Abstract].

*Conclusion*

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunray Chang whose telephone number is (571) 272-3682. The examiner can normally be reached on M-F 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (571) 272-3687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-746-3506.



Anthony Knight  
Supervisory Primary Examiner  
Group Art Unit 2121  
Technology Center 2100  
U.S. Patent and Trademark Office

June 23, 2006